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09/072,784 05/06/98 HASKELL

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EXAMINER

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ART UNIT

PAPER NUMBER

2724

DATE MAILED:

01/27/00

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/072,784

Applicant(s)

Haskell et al.

Examiner

Wenpeng Chen

Group Art Unit
2724

Responsive to communication(s) filed on _____

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

- Claim(s) 1-27 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration.
- Claim(s) _____ is/are allowed.
- Claim(s) 1-27 is/are rejected.
- Claim(s) _____ is/are objected to.
- Claims _____ are subject to restriction or election requirement.

Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The drawing(s) filed on Dec 14, 1999 is/are objected to by the Examiner.
- The proposed drawing correction, filed on _____ is approved disapproved.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All Some* None of the CERTIFIED copies of the priority documents have been
- received.
- received in Application No. (Series Code/Serial Number) _____.
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- *Certified copies not received: _____
- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- Interview Summary, PTO-413
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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Drawings

1. The drawings are approved by the Draftperson.
2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 23 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The bitstream contains mere coded data which is nonfunctional descriptive material.

Claim Rejections - 35 USC § 102

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Das et al. (US patent 5,896,176.)

Das teaches a method of encoding video information, comprising the steps of:

-- receiving the video information; (column 5, lines 24-31)

-- identifying an element of the video information; (column 11, lines 32-37 and 55-63; column 12, lines 42-59; The region of interest is the element.)

-- assigning a priority to the element; (column 11, lines 55-63; the map indicating priorities)

-- encoding the video information into bitstream, including an indication of the priority of the element; (column 11, lines 32-37 and 55-63; Both the image data and the priority map are coded.)

- wherein the video information is coded into a bitstream for low bitrate transmission; (column 3, lines 62-67)

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- wherein the coding is performed according to the MPEG-4 standard; (column 4, lines 1-3)

- wherein the bitstream is a visual bitstream and the indication of the priority of the elements is carried out by a specific codeword; (column 11, lines 55-63; column 17, lines 30-55; A video bitstream is a visual bitstream. The priority map is at least represented by binary numbers which are specific codewords.)

- wherein the bitstream is a systems bitstream and the indication of the priority of the elements is included as part of an object descriptor in the systems bitstream; (column 12, lines 43-59; Because the region of interest could be macroblocks covering objects, the priority map is included as part of the contour map which is an object descriptor. The passage in column 17, lines 30-55 indicates that the bit stream is a systems bitstream.)

-- wherein the element is a visual object; (column 12, lines 42-59)

-- wherein the element is a video object layer; (column 14, lines 35-53; column 15, lines 1-8 and 28-66; The objects in the I, P, P sequence forms a video object layer. When an object is assigned as a region of interest, the whole sequence is also of the region of interest.)

-- wherein the element is a video object plane; (Fig. 5c; When an object is assigned to be interest, an associated video object plane is formed as shown in Fig. 5c.)

-- wherein the element is a key region; (column 12, lines 42-59; faces)

-- wherein the step of assigning a priority is optional; (The language in Claim 8 makes an alternative limitation: the step is performed or not performed. As discussed above, the step being

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performed thus meets the requirement. Furthermore, the manipulation and scalability recited in column 2, lines 13- 36 inherently teach that the step can be selectively not performed.)

-- wherein the step of assigning a priority is performed based on the importance of the information contained in the element; (column 12, lines 42-59)

-- wherein elements having a high priority is performed before being performed for element having low priority; (The passage in column 11, lines 32-37 teaches selecting a region for coding. The passage inherently teaches a region of higher priority is coded first. The passage in column 11, lines 55-30 teaches that more than two priorities are assigned to regions. Even if the lowest region is not coded, there are at least two regions to be coded. The region of highest priority is always selected to be coded before the region of the second high priority.)

-- wherein encoding of elements having a low priority is not performed; (column 11, lines 55-63)

-- transmitting the bitstream, wherein information related to elements having a high priority is transmitted before information related to elements having a low priority. (transmission channel in Fig. 1; The passage in column 17, lines 30-53 teaches the required transmission sequence. The high priority data of the first object is sent first.)

The above passage also teaches Claim 23, because the required bitstream is generated by the steps recited in Claim 1.

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Das also teaches the corresponding encoding apparatus recited in Claim 24: the input port, the encoding unit, and the output port. (Fig. 1; The specific features recited by Claim 24 are taught by the passage related to Claim 14.)

Das also teaches the corresponding medium recited in Claim 26. (Column 5, lines 11-23; The specific features recited by Claim 26 are taught by the passage related to Claim 1.)

Das also teaches the corresponding method of decoding encoded bitstream, comprising the steps of:

-- receiving the encoded bitstream; (Fig. 1)
-- identifying a first element and a second element in the encoded bitstream, the first having a first priority and the second having a second priority lower than the first priority; (column 16, lines 39-45; column 15, lines 12-21; column 13, line 63 to column 14, line 18; column 7, lines 4-17; It is also well known in the art that a decoder is a mirror image of an encoder. All of the specific data attributes generated in an encoder are all inherently transferred to the corresponding decoder. The shape information provides the identification. For example, the lady and the background are the first and second elements, respectively.)

-- decoding the first element to reconstruct video information contained in the bitstream; (column 16, lines 39-45; column 15, lines 12-21; column 13, line to column 14, line 18; column 7, lines 4-17)

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-- decoding the second element to reconstruct video information contained in the bitstream; (column 16, lines 39-45; column 15, lines 12-21; column 13, line to column 14, line 18; column 7, lines 4-17)

-- wherein the first and second elements are visual objects; (column 12, lines 42-59)

-- wherein the first and second elements are video object layers; (column 14, lines 35-53; column 15, lines 1-8 and 28-66; The objects in the I, P, P sequence forms a video object layer.

When an object is assigned as a region of interest, the whole sequence is also of the region of interest.)

-- wherein the first and second elements are video object planes; (Fig. 5c; When an object is assigned to be interest, an associated video object plane is formed as shown in Fig. 5c.)

-- wherein the first and second elements are key regions; (column 12, lines 42-59; faces)

- wherein the bitstream is a visual bitstream and the indication of the priority of the elements is carried out by a specific codeword; (column 11, lines 55-63; column 17, lines 30-55; A video bitstream is a visual bitstream. The priority map is at least represented by binary numbers which are specific codewords.)

- wherein the bitstream is a systems bitstream and the indication of the priority of the elements is included as part of an object descriptor in the systems bitstream. (column 12, lines 43-59; Because the region of interest could be macroblocks covering objects, the priority map is included as part of the contour map which is an object descriptor. The passage in column 17, lines 30-55 indicates that the bit stream is a systems bitstream.)

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Das also teaches the corresponding decoding apparatus recited in Claim 25: the input port, the decoding unit, and the output port. (Fig. 1; The specific features recited by Claim 25 are taught by the passage related to Claim 15.)

Das also teaches the corresponding medium recited in Claim 27. (Column 5, lines 11-23; The specific features recited by Claim 27 are taught by the passage related to Claim 15.)

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wenpeng Chen whose telephone number is (703) 306-2796.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

The art unit fax number is (703) 306-5406.

Wenpeng Chen

January 21, 2000



WENPENG CHEN
PATENT EXAMINER